

# X axis | MN15-10mm

Linear Piezo Motor



# **Introduction**

MN15-10mm linear piezo motor adopts piezo step direct drive, and features long travel and small size. Optional servo sensors (incremental encoder) is for high positioning accuracy and motion platform are available.

#### Characteristics >>

- Piezo drive
- Small size
- Nanometer resolution
- 10mm travel
- Optional closed-loop version, vacuum version

## Applications >>

- Wafer inspection
- Profilometry
- Nano lithography
- Nanotechnology and metrology
- Microscopy
- Semiconductor technology
- Surface measurement technique
- Motion in strong magnetic fields or vaccum



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### Technical Data >>

Туре	MN15-10mm	Units
Width	22	mm
Height	7	mm
Depth	15	mm
Travel	10	mm
Speed	1.5	mm/s
Mass	20	g
Load capacity		
Torque Mx	4.5	Ncm
TorqueMy	1.5	Ncm
TorqueMz	3.2	Ncm
Blocking force Fx	3	N
Fy、Fz	20	N
Resolution(cal.)		
Single step	-	nm
1/16 step	-	nm
1/64 step	-	nm
1/2 step	-	nm
Double steps	-	nm
Guiding accuracy (unloaded)		
Yaw angle	20	arc sec
Pitch angle	60	arc sec
Vertical deviation	1	μm
Lateral deviation	2	μm

Note: Closed-loop version available with larger size. The closed-loop accuracy is up to  $\pm 1\mu m/m$ . The frequency is up to 400kHz.

Communication via RS-422 port. Operating temperature is  $0\sim55^{\circ}$  C. 2-axis or 3-axis motion versions are available.

### Recommended Controllers >>



E53.D1E/C1K-J Software control suitable for 1-axis stage Open loop or servo control



E71.D3E/C3K-J
Software control
suitable for 2 or 3-axis stage
Open loop or servo control

# Drawing(without sensor) >>

